April 3, 1973
Preliminary Copy
University of Idaho
Soil Conservation Service

Southwick Silt Loam 68 Ida 0512

General Site Characteristics

Location--Benewah County, Idaho, south of Tensed, 1080 feet south and 380 feet northwest of the corner of section 30, T. 44 N., R. 4 W.; described--June 19, 1968, by Hal Bigerstaff and Neil Peterson; topography--undulating to rolling uplands, gently sloping, 4 percent slope; elevation--2570 feet; aspect--northeast; parent material--loess-buried palesosol; drainage--moderately well; erosion--none under native vegetation; permeability--moderate to 32 inches, slow in B21t; root distribution--concentrated above B21t; vegetation or use--Ponderosa Pine, wild rose, mine bark, pine grass, tall shrub; classification--Boralfic Argixerolls, fine-silty, mixed, mesic.

Pedon Description

O1 1.5-0.5 inches. Fresh and partially decomposed litter.

O2 0.5-0 inches. Decomposed litter - humus.

A11 0-10 inches. Dark gray (10YR 4/1) silt loam, very dark gray (10YR 3/1) moist; moderate medium subangular blocky to moderate fine granular structure; slightly hard, friable, slightly sticky, slightly plastic; non-calcareous; abundant very fine, fine, and medium roots; interstitial pores; clear smooth boundary.

A12 10-18 inches. Dark grayish brown (10YR 4/2) silt loam, very dark gray (10YR 3/1) moist; weak medium and fine subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; non-calcareous; plentiful very fine, fine and medium roots; common fine tubular pores; diffuse smooth boundary.

B2 18-24 inches. Pale brown (10YR 5.6/3) silt loam, dark brown (10YR 3/3) moist; weak medium subangular blocky structure; slightly hard, friable, slightly sticky, slightly plastic; non-calcareous; plentiful very fine and fine and few medium roots; common fine tubular pores; clear smooth boundary.

A'2 24-32 inches. Light gray (10YR 7/2) silt loam, brown (10YR 5/3) moist; weak medium prismatic structure; slightly hard, friable, slightly sticky, slightly plastic; non-calcareous; plentiful very fine and fine roots; common fine tubular pores; common concretions less than 2mm; gradual irregular boundary.

B'21t 32-47 inches. Yellowish brown (10YR 5/4) silty clay loam, brown to dark brown (10YR 4/3) moist; strong coarse to medium prismatic structure; very hard, very firm, sticky, plastic; non-calcareous; plentiful very fine and fine roots; common fine tubular pores; medium continuous clay films on vertical and horizontal pore surfaces; common concretions less than 2mm; possible fragipan; peds and pores have bleached faces; roots follow cleavage planes, slightly flattened, some fiberous roots enter peds; diffuse smooth boundary.

B22't 47-61 inches. Yellowish brown (10YR 5/4) silty clay loam, brown to dark brown (10YR 4/3) moist; moderate medium to coarse prismatic structure; very hard, very firm, sticky, plastic; non-calcareous; few very fine and fine roots; common fine tubular pores; medium nearly continuous clay films on vertical and horizontal pore surfaces; concretions less than 2mm; roots follow cleavage planes, slightly flattened, some fiberous roots enter peds; gradual smooth boundary.

B23't 61-65 inches. Pale brown (10YR 6/3) silty clay loam, dark yellowish brown (10YR 4/4) moist; weak coarse to medium prismatic structure; hard, firm, slightly sticky, slightly plastic; non-calcareous; few fine roots; common very fine tubular pores; thin patchy clay films on vertical pore surfaces bleaching around some pores; common conretions larger than 2mm.

Chemical characterization and physical analysis of profile — Southwick 68-4 — 68 Ida 0512

Benewah County — SCS No. 68-4

No.	Horizon	Depth in.	pH Paste	pH 1:5	ECx10^3	Saturation extract me/1000 gms soil: Ca	Mg	Na	K	CO_3	HCO_3	Cl	SO_4
1	A11	0-10"	5.93	6.02	0.35								
2	A12	10-18"	5.87	6.05	0.27								
3	B2	18-24"	5.97	6.00	0.24								
4	A^{1}2	24-32"	5.79	5.98	0.20								
5	IIB^{1}21tx	32-47"	5.85	6.29	0.25								
6	B22tx	47-61"	5.92	6.37	0.24								
7	B3t	61-65"	5.90	6.28	0.30								

Extractable ions me/100 gms: Ca	Mg	Na	K	H	C.E.C. meq/100	Base Sat.%	Gyp.	$CaCO_3$	E.S.P.	C	O.M. %	N %	C:N	Pw at sat.	Soil:Rx Ratio
13.75	3.50	0.17	1.45	13.09	23.28					2.55	4.38	0.170	15.02	68.0	
12.50	4.15	0.23	1.15	12.27	24.12					1.73	2.98	0.115	15.05	70.0	
10.31	3.75	0.31	0.74	7.36	18.20					1.02	1.74	0.080	12.73	66.0	
7.38	3.75	0.25	0.25	6.34	13.58					0.23	0.38	0.031	7.45	50.0	
14.63	5.00	0.45	0.46	6.95	27.26					0.24	0.41	0.051	4.67	56.0	
15.63	5.37	0.45	0.41	6.75	31.14					0.20	0.35	0.028	7.24	52.0	
14.63	5.05	0.43	0.38	6.14	25.50					0.18	0.31	0.030	5.95	50.0	

Reference for Data: Dr. Maynard Fosberg
Dept. of Plant & Soil Sciences
University of Idaho
Moscow, Idaho 83843

Analysis by: Jackie McClellan

Superscript ^{1} represents "prime" (')

Profile

Southwick 68 Ida 0512 August 13, 1969

	Particle size distribution (mm) (percent)								Gravel &	Texture
No.	VCS	CS	MS	FS	VFS	TS	TSi	TC	Stone, etc.	Class
	2-1.0	1-0.5	0.5-0.25	0.25-0.05	0.1-0.05	2.05	0.05-0.002	<0.002	>2mm	
0-10	.03	.08	.13	1.05	5.96	7.25	72.06	20.70		Silt loam
10-18	.04	.05	.09	1.03	5.21	6.42	72.64	20.94		Silt loam
18.24	.02	.05	.12	1.21	6.26	7.67	73.93	18.40		Silt loam
24-32	-	-	.06	.18	4.68	4.92	78.17	16.91		Silt loam
32-47	-	.04	.09	.62	3.57	4.32	65.58	30.10		Silty Clay loam
47-61	.02	.06	.08	.39	3.09	3.64	66.87	29.48		Silty Clay loam
61-65	-	.03	.09	.31	2.70	3.14	69.82	27.05		Silty Clay loam

Remarks: pipette method

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Analysis by: Ellen Buchert

Bulk Density (g/cc)

0-10	1.37
10-18	1.15
18-24	1.24
24-32	1.73
32-47	1.89
47-61	1.81
61-65	1.77